

Temperature Controller



DATA SHEET 602 SERIES



SPECIFICATIONS:

CONTROL MODE: Time proportioning with automatic reset.

PROPORTIONAL BAND: Front panel adjustment is:

- 1) (Relay and solid state outputs) 5 to 50°F.
- 2) (Process outputs) 5 to 100°F.

AUTO RESET:

Internal adjustment. Adjustable over a range of 0.5 to 0.05 repeats per minute. Can be defeated by adding a jumper wire internally on process units or across terminals 1 and 2 on the barrier strip for the other models.

CYCLE RATE: Relay and solid state models only. Internal adjustment. Range of adjustment is 1 to 20 seconds.

SENSOR: Thermocouple, Types "J" and "K".

OUTPUTS:

- 1) Relay: S.P.D.T. plug-in. Rated at 10A/120V, 5A/240V resistive, 50 V.A. inductive.

2) Solid State:

- a) Zero switching isolated triac rated 1 ampere at 120/240V. Note: Load current must be 0.05 amperes to insure proper triac switching.

- b) Zero switching isolated triac rated 15 amperes at 120/240V. Note: Load current must be 0.1 amperes to insure proper triac switching.

- 3) Process Outputs: (Current output into 500 ohms load maximum.)

- a) 0 - 20 mA/0 - 5V.

- b) 4 - 20 mA/1 - 5V.

Note: Terminals 4 and 5 must be jumped if voltage output only is to be used.

INDICATION:

- 1) Direct Reading: An analog meter superimposed over the dial scale that indicates temperature directly.

- 2) Deviation: A calibrated analog meter integral to the controller that uses the set point temperature $\pm 30^\circ\text{C}$ or $\pm 50^\circ\text{F}$ to indicate process temperature.

INDICATOR LIGHTS: Long life L.E.D.'s.

- 1) Power: Indicates when A.C. power has been applied to the controller.

- 2) Load: Indicates when power has been applied to the load.

LINE VOLTAGE: 115/230 VAC, -10%, +20% 50/60 Hz.

POWER CONSUMPTION: Less than 5 V.A.

OPERATING AMBIENT: 30 to 130°F.

SET POINT SHIFT W/AMBIENT:

Typically 10 microvolts/°F referred to the input.

SET POINT SHIFT W/LINE VOLTAGE:

Typically $\pm 0.1\%$ of span for $\pm 10\%$ change in line voltage.

ISOLATION:

T.C. input to load and line for relay and solid state models.
D.C. resistance: 10^{11} ohms. Capacitance: 50 pf.

SENSOR PROTECTION:

In the event of an open sensor, load power will be removed.

REMOTE CONTROL OR SLAVING:

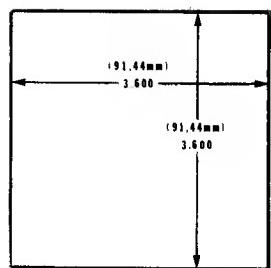
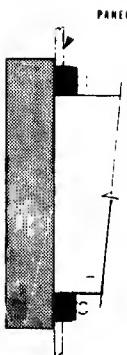
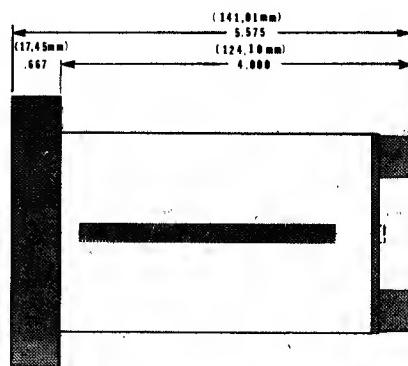
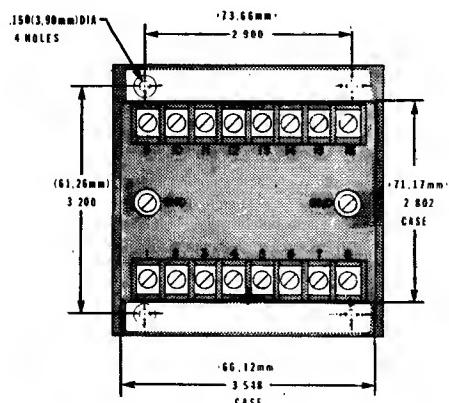
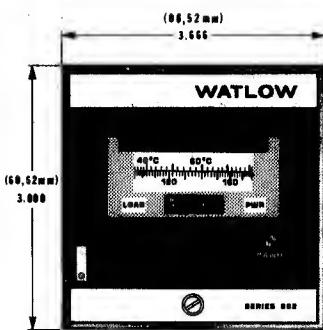
The unit has the capability of being controlled by an external source. There is also the possibility of slaving one controller to another for master control from one location. Consult the factory for further information.

WATLOW WINONA, INC.

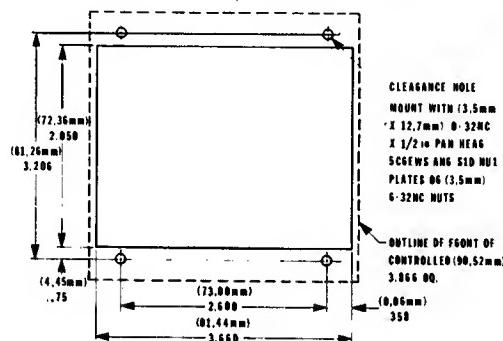
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1265 EAST SANBORN STREET

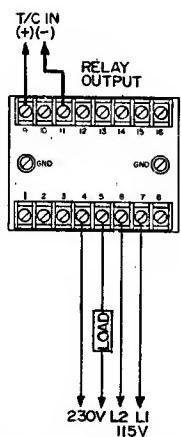
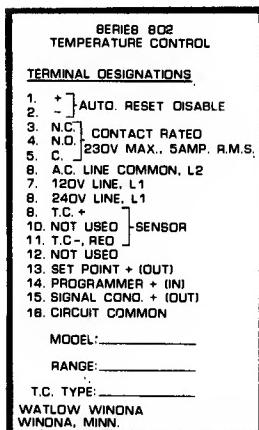
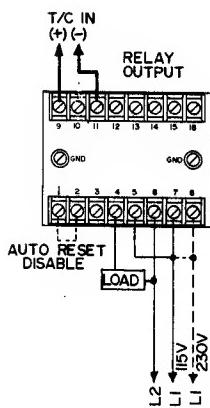
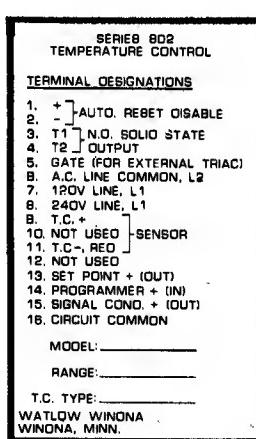
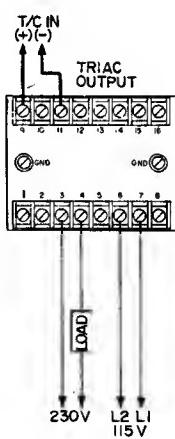
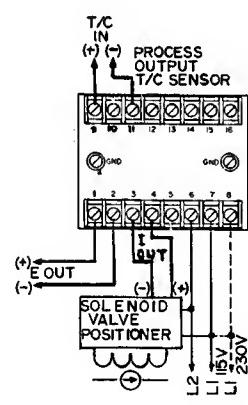
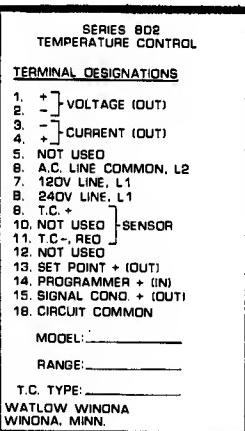
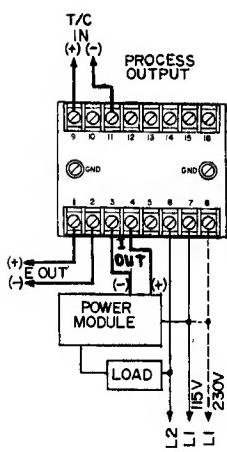
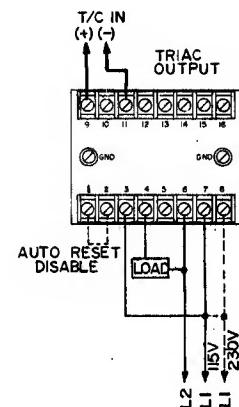
PHONE 507 454-5300



PANEL CUTOUT



ALTERNATE PANEL CUTOUT



ORDERING INFORMATION

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|-----------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|
| 1. INDICATION
1 - ANALOG (D.R.)
2 - ANALOG (D.EV.) | 2. RANGE CODE - T/C ONLY
SEE RANGE CHART 3. |
| 3. OUTPUT MODE
A - 10A RELAY
B - 1A TRIAC
C - 15A TRIAC
D - 4-20 mA/1-5V
E - 0-20 mA/0-5V | 4. OUTPUT
1 - COOLING
2 - HEATING |
| 7. OUTPUT
1 - COOLING
2 - HEATING | |

NOTE: Consult factory on availability of 15A output.